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The Legacy of Ancient Technology (UHON 222-009)

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TROY R. LOVATA

The Legacy of Ancient Technology

UHON 222-009 (Sophomore Level),
3 Credits

TROY R. LOVATA, PH.D.

(HONORS PROGRAM FACULTY)

UNIVERSITY OF NEW MEXICO

UNIVERSITY HONORS PROGRAM

ROSALIE OTERO, PROGRAM DIRECTOR

Description

This course is based in the actual construction, use, and hands-on study of ancient technologies. The everyday, the mundane and the ubiquitous are keys to understanding the past. At the same time, ancient technologies set the stage for modern tools and artifacts, and they provide comparisons to how and why we use technology today. Students will construct and experiment with fire, stone tools, spears and atlatls, weaving and basketry, and adobe architecture. This course will also expose students to both historical and modern issues of resource use and preservation, consumerism and fashion, and the relationship between the natural and built environments.

(As with all University of New Mexico Honors Program courses, registration is capped at 16 students).

Texts

Students use an Honors Program produced reader (individual readings discussed below) and John Whittaker's book *Flintknapping: Making & Understanding Stone Tools* (1997).

Schedule

Week 1

Jan. 17-19 An Introduction to How and Why We Study Ancient Tools and Technology

Read: 'Ethnoarchaeology: A Discussion of Methods and Applications' by Daniel Stiles (from *Man*, vol. 12, no. 1, 1977) and short excerpts from Leonard Bruno's *The Tradition of Technology* (1995)

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Week 2

24–26

Fire and Fire Making

Hands-On Experiments with Matches and Flint and Steel

Read: selections from Stephen Pyne's *Fire: A Brief History* (2001), Walter Hough's 'Aboriginal Fire Making' (*American Anthropologist*, vol. 3, no. 4, 1890), and Dino Labiste's web-based essay 'Making Fire with a Bow Drill' (2001).

Week 3

31–Feb. 2

Fire and Fire Making cont'd

Hands on Experiments with Bow Drillings, Fire Ploughs and Friction Methods

Discussion of the Social Impacts of Fire

Read: selections from Stephen Pyne's *Fire: A Brief History* (2001)

Week 4

7–9

Making and Using Stone Tools

Flintknapping Demonstration

Read: Whittaker's *Flintknapping* chpts 1–7

*Assignment 1 Due (fire making narrative and essay on the social impact of fire)

Week 5

14–16

Stone Tools cont'd

Hands-On Flintknapping Experiments Using Obsidian

Read: Whittaker's *Flintknapping* chpts 8–10

Week 6

21–23

Stone Tools cont'd

Hands-On Flintknapping Experiments Using Obsidian and Cherts

Experiemental Use of Stone Tools on Wood and Bone

Week 7

28–Mar. 2

The Physics of Spears and Atlatls

Read: Brian Cotterell and Johan Kamminga's 'Projectiles' (from *Mechanics of Pre-Industrial Technology*, 1990)

*Assignment 2 Due (essay on stone tool manufacture and use)

Week 8

7–9

Making and Practice Using Spears and Atlatls

Practice Throwing Atatls (meet at the Johnson Athletic Fields)

Read: George Frison's 'Experimental Use of Clovis Weaponry and Tools on African Elephants' (*American Antiquity*, vol. 54, no. 4, 1989)

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Week 9

14–16 Spring Break, No Class.

Week 10

21–23 Discussion of the Value of Textiles, Rope and Fiber Technologies.
Read: Norm Kidder's 'Making Cordage By Hand' (*Bulletin of Primitive Technology*, no. 12, 1996), selections from Anna Gil's *Practical Basketry* (1916)
*Assignment 3 Due (notes and essay on throwing spears and using atlatls)

Week 11

28–30 Experiments Making and Using Textiles, Rope and Fiber.
Watch: excerpt from *Secrets of Lost Empires: Inca* (1997)
Read: Donald Thomson's 'A Bark Sandal from the Desert of Central Western Australia' (*Man*, vol. 60, 1960) and Donald Ryan's 'Papyrus' (*The Biblical Archaeologist*, vol. 51, no. 1, 1988).

Week 12

Apr. 4–6 Discussion of Textiles, Rope and Fiber as Insight into the Anthropology of Skill
Read: Tim Ingold's 'Beyond Art and Technology: The Anthropology of Skill' and Charles Keller's 'Thought and Production: Insights of the Practioner' (both from Micheal Shiffer's *Anthropological Perspectives on Technology*, 2001)
*Assignment 4 Due (narrative of experiments with twisting and using fiber and cordage)

Week 13

11–13 Discussion of Adobe as Building Material in Ancient and Modern Times
Read: excerpts from Orlando Romero and David Larkin's *Adobe: Building and Living with Earth* (1994)
*Assignment 5 Due (essay on the Anthropology of Skill)

Week 14

18–20 Adobe cont'd
Hands-On Experiments in Mixing and Using Earth Bricks and Blocks
Read: Paul Oliver's 'Earth as Building Material Today' (*Oxford Journal of Art*, vol. 5, no. 2, 1983) and Paul Wencil Brown and James Clifton's 'The Properties of Adobe' (*Studies in Conservation*, vol. 23, no. 4, 1978)

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Week 15

25–27 Hands-On Experiments in Adobe Wall and Oven Construction
Discussion of Individual Trip Reports from the Maxwell Museum of Anthropology

Week 16

May 2–4 Complete Adobe Building Experiments
Last Day of Class
*Public Presentation of Project 6, Experiments with Abode Wall and Oven Construction

Grading

Grades are based on a 1000 point scale with 10 points equaling 1% of the final grade (an “A” is earned at 90% or 900 points). Grades are based on the completion of a series of written and creative assignments from each topic (fire, stone tools, etc.). These are generally based on a worksheet that requires the student to take notes of their experiments, document what they’ve done, and contemplate the meaning of their work in short essays. There are no tests or final exams. Class participation, and therefore attendance, is an essential part of this course. Students will also complete a short trip report based on comparisons between their experiments and the displays at the Maxwell Museum of Anthropology.

Grading breaks down as follows:

Projects 600 points (6 projects @ 100 points each)
Trip Report 100
Attendance and Participation 300 points

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